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BUCHANAN, INGERSOLL & ROONEY PC  
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EXAMINER
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SYKES, ALTREV C

ART UNIT	PAPER NUMBER
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4145

NOTIFICATION DATE	DELIVERY MODE
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03/24/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,537	<b>Applicant(s)</b> KOOPS ET AL.	
	<b>Examiner</b> ALTREV C. SYKES	<b>Art Unit</b> 4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20041228</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed October 29, 2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the following information referred to therein has not been considered: all 7 Foreign Patent Documents, since applicant has not provided copies of said documents.

### ***Claim Objections***

1. Claim 26 is objected to because of the following informalities: The word the] seems to be a misspelling of the word the.  
Appropriate correction is required.
2. Claims 30, 32 and 34 are objected to because of the following informalities: the word fire seems to be a misspelling of the word fiber. Additionally, the word both seems to be a misspelling of the word broth.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

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regards as the invention. The dependency of the claim is unclear to the examiner. For purposes of examination at this time, claim 22 is treated as if dependent on claim 1.

Amendment is required.

5. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to the examiner what the Applicant considers to be “content” as recited in the instant claim. For purposes of examination at this time, the word content is treated as meaning the “make-up”.
6. Claims 32-34 provides for the use of a fiber, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.  
Claims 32-34 are rejected under 35 U.S.C. 101 because the claimed recitations of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).
7. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the

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resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 32 recites the broad recitation use of a fiber for the adsorption and/or purification of compounds from a mixture of compounds or a reaction mixture, and the claim also recites in particular from a fermentation broth, tissue broth, plant broth or cell broth in general which is the narrower statement of the range/limitation.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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9. Claims 1, 3-4, 8-15, 17-23, 25-29, and 31-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu et al. (US 6,497,953) as evidenced by article Activated Carbon for Solvent Recovery.

Regarding claim 1, Yu et al. discloses a method for making polymeric fiber: (See Col 1, lines 60-62)

- having particulate material entrapped in said matrix in which the polymeric matrix is porous (See modified pigment Col 1, lines 60-66) and the particles are well accessible and maintain their functionality after preparation, (See Col 2, lines 34-42)
- said method comprising providing a mixture of polymeric material and particulate material in a solvent for the polymeric material and extruding said mixture into a fibre (See Col 9, lines 14-32 and Col 6, lines 34-36)
- and solidify said fibre by a two-step phase inversion process. (See Col 3, lines 8-33, wherein two step phase inversion is immersion induced phase separation as so defined by Applicant)

Regarding claims 3, 4, 8, and 12 Yu et al. discloses all of the claim limitations as set forth above.

Additionally, Yu et al. discloses a method for making polymeric fiber in which:

- the solvent used is selected from N-methyl-pyrrolidone (NMP), dimethyl acetamide (DMAc), dimethylformamide (DMF), dimethylsulfoxide

(DMSO), tetrahydrofurane (THF), s-caprolactam or 4-butyrolactone. (See Col 6, lines 34-46)

- the solvent in the mixture of polymeric material and particulate material is replaced by 0.01-50% by weight of one or more additives and/or non-solvents. (See water Col 8, lines 26-37)
- the two-step phase inversion process involves the use of a spinneret, (See Col 3, lines 8-22 wherein the exterior medium is the solution of the fiber-forming bath)

Regarding limitations recited in claim 8 and 12 which are directed to specific properties of the spinneret allowing for the controlled flow of a liquid, a vapor or a gas as an exterior medium of the fiber, the examiner has shown that Yu et al. discloses the identical mixture according to the method of that instantly claimed. Additionally, the Applicant discloses that the use of a so-called triple layer spinneret is synonym for a two-step phase inversion fiber formation process. (See pg. 11, lines 10-18) As the two-step inversion process of Yu et al. has been shown to be similar to that of the Applicant, it is necessarily inherent that the spinneret of Yu exhibit the same properties as instantly claimed. See MPEP 2112.

Regarding claims 9-11, 13-15, 17-21 Yu et al. discloses all of the claim limitations as set forth above.

Additionally, Yu et al. discloses a method for making polymeric fiber in which:

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- the exterior medium is a liquid mixture of solvent and nonsolvent for the polymer. (See Col 8, 17-23 wherein water is the nonsolvent)
- the exterior medium is a gas stream comprising a nonsolvent for the polymer. (See dry spinning Col 3, 28-33)
- the nonsolvent is water or water vapor. (See Col 8, 17-23 wherein water is the nonsolvent)
- the polymeric material is selected from polyethersulphone, polysulfone, polyethylene-co-vinylalcohol, polyvinylidene fluoride and cellulose acetate. (See Col 8, lines 63-65)
- the particulate material in the porous matrix is altered in its function by a subsequent functionalisation. (See modified pigment Col 3, lines 50-67)
- the particulate material is adsorptive particulate material. (See Col 5, lines 43-46 wherein activated charcoal is adsorptive)

Regarding the limitation as recited in claim 17 that the adsorptive particulate material is hydrophobic in nature, the examiner has shown in the article of Activated Carbon for Solvent Recovery that active carbon has hydrophobic surface properties, Yu et al. discloses a method for producing a fiber containing pigments of activated carbon entrapped therein similar to the method of that instantly claimed. (See Col 5, lines 7-9 and 43-46) As activated carbon has been shown to be used in a method similar to that of the Applicant, the adsorptive particulate is hydrophobic.



Regarding the limitation claim 18-21 it should be noted that the recitation of “the particulate material is used for size exclusion, separation of isomeric compounds, separation of optically active compounds, or used in reverse phase chromatography” are considered to be intended use statements and are not given patentable weight at this time since the prior art meets the structural and/or chemical limitations set forth and there is nothing on record to evidence that the prior art product could not function in the desired capacity or that there is some additional implied structure associated with the term. The burden is shifted upon the Applicant to evidence the contrary.

Regarding claims 22-23, 25-27 Yu et al. discloses all of the claim limitations as set forth above.

Additionally, Yu et al. discloses a method for making polymeric fiber in which:

- the particulate material is functionalised, or is subsequently functionalised, with a catalyst or a biocatalyst. (See Col 3, lines 8-12)
- the particulate material is active carbon. (See Col 5, lines 43-46)
- the method further comprises heat treatment. (See Col 8, lines 38-44)

Regarding the limitation as recited in claim 26 and 27 for controlling porosity of a polymeric matrix having particulate material entrapped in said matrix by varying the size of the particulate material, and by varying the content of the particulate material as set forth above, the examiner notes that Yu et al. discloses a method for producing a fiber containing pigments entrapped therein equivalent to that of the method as instantly

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claimed. Additionally, Yu et al. discloses the pigment can be modified to encompass a) at least one organic group or a C<sub>1</sub>-C<sub>12</sub> alkyl group and optionally b) with at least one ionic group, at least one ionizable group, or a mixture of an ionic group and an ionizable group. (See Col 3, lines 58-68) It is noted by the examiner that by increasing the functional groups attached to the pigment of Yu et al., the size of the particle will change as well as the content, which would inherently have an effect on porosity.

Regarding claims 28, 29, and 31-34 Yu et al. discloses all of the claim limitations as set forth above.

Additionally, Yu et al. discloses a method for making polymeric fiber in which:

- said matrix by varying the functionality of the particulate material in the method according to claim 1. (See modified pigment Col 3, lines 50-67 and Col 5, lines 6-46)
- a fibre obtainable by the method as set forth above. (See Col 9, lines 33-56)
- a body comprising the fiber. (See Col 9, lines 40-56)

Regarding limitations recited in claim 32-34 for the use of the fiber as set forth above for the adsorption and/or purification of compounds from a mixture of compounds or a reaction mixture, in particular from a fermentation broth, tissue broth, plant broth or cell broth in general; for the immobilization of a catalyst in a reaction mixture; and for the immobilization of a chemical or biological compound, it should be noted that the

recitation of “ the use of the fiber for” as set forth above is considered to be an intended use statement and is not given patentable weight at this time since the prior art meets the structural and/or chemical limitations set forth and there is nothing on record to evidence that the prior art product could not function in the desired capacity or that there is some additional implied structure associated with the term. The burden is shifted upon the Applicant to evidence the contrary.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
12. Claims 2, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,497,953).

Regarding claim 2, 6, 7 Yu et al. discloses all of the claim limitations as set forth above, but the reference does not explicitly disclose the mixture that is extruded comprises 0.5% to 50% by weight polymeric material and 1% to 95% by weight

particulate material, the remainder being solvent, the fibre comprises 5-95% by weight of polymeric material and 5-95% by weight of particulate material, and the fibre comprises about 60-95% by weight of particulate material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the weight percent of the particulate material and polymeric material since it has been held that, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). The burden is upon the Applicant to demonstrate that the claimed weight percentages are critical and have unexpected results. In the present invention, one would have been motivated to optimize the weight percentages of the particulate and polymeric materials motivated by the desire to further influence the pore structure in the matrix.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,497,953) as applied to claim 1, 3-4, 8-15, 17-23, 25-29, and 31-34 above, in view of Hooper et al. (US 2,692,185)

Regarding claim 5, Yu et al. discloses all of the claim limitations as set forth above, but the reference does not explicitly disclose the additives are selected from octanol, polyvinylpyrrolidone (PVP), polyethylene glycol (PEG), and glycerol.

However, Yu et al. does disclose at the exit of the bath, additives may be applied to the acrylic-containing fibers and the fibers are collected in bundles of the desired tex or denier. (See Col 3, lines 20-24, and Col 8, lines 45-49) In the fiber-forming (coagulation) bath of Yu et al. any conventional bath medium may be used. Preferably, the fiber-

forming bath comprises a water/solvent mixture or solution that promotes the formation of fiber filaments from the spinning solution as the solution is pumped through the spinnerets. (See Col 8, lines 17-23) For example, a preferred fiber-forming bath comprises a 40:60 weight ratio of DMF to water. (See Col 8, lines 26-27)

As such, Hooper et al. discloses a method for the production of similar wet-spun acrylonitrile polymer fibers having stabilized and uniform whiteness and luster. (See Col 1, lines 1-3) Hooper et al. discloses that wet-spun opaque fibers can be relustered into white colorless fibers which are permanently stabilized against changes in luster and color in the presence of heat and moisture. (See Col 1, lines 42-46) At least a portion of the coagulation of the extruded material is performed in the presence of water. (See Col 2, lines 20-26) Additionally, Hooper et al. discloses that the coagulating action may be performed completely by an aqueous medium or part of the coagulating action may be performed by a non-aqueous medium, e.g., a polyhydric alcohol such as glycerol, followed by the coagulating action of an aqueous medium such as water. (See Col 2, lines 26-31) As the method according to Applicant of producing a fiber does not include a critical order for the steps of introducing the additive, it is noted that Yu et al. also does not disclose any negative effects for adding the additive to the coagulation bath before the exit of the fibers from the spinnerets. For example, adding the additive with the pigment to the spinning solution.

Hooper et al. discloses a spinning method similar to that of Yu et al. of making acrylic-containing fibers, as such the art is analogous. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the additive

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of glycerol as taught by Hooper et al. in the coagulating action of Yu et al. to produce a fiber of uniform whiteness and luster which would be beneficial to acrylic apparel including sweaters, socks, fleece, sportswear, children's wear, and the like.

14. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,497,953) as applied to claim 1, 3-4, 8-15, 17-23, 25-29, and 31-34 above, in view of Rohrbach et al. (US 5,744,236) as evidenced by The Columbia Encyclopedia.

Regarding claim 16, Yu et al. discloses all of the claim limitations as set forth above, but the reference does not disclose the adsorptive particulate material is an ion exchange resin. However, Yu et al. does disclose that the modified pigment has at least one organic group attached thereto. (See Col 3, lines 58-59) The attached organic group preferably includes a) at least one aromatic group or a C<sub>1</sub>-C<sub>12</sub> alkyl group and optionally with b) at least one ionic group, at least one ionizable group, or a mixture of an ionic group and an ionizable group. (See Col 3, lines 61-68)

As such, Rohrbach et al. discloses a method of producing hollow fibers which permanently retain in their interior small solid particles. (See Col 1, lines 6-9) The filter mat fibers may be made of one or more types of material such as polyamides, polyesters, polyolefins or a combination thereof. (See Col 3, lines 1-3 and 18-20) Additionally, Rohrbach et al. discloses that the disclosed approach can be extended to any powder which one would like to entrap within a fiber medium, including such agents as zeolites, baking soda, cyclodextrins or any number of other solid particles of interest. (See Col 4, lines 1-2) The fibers have also been used to entrap particles of zinc oxide, zirconium oxide, silica, alumina in various phases, clays including kaolin and bentonite. (See Col 4,

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lines 2-5) By definition, ion exchange is an exchange of ions between two electrolytes or between an electrolyte solution and a complex. Additionally, it is known via (The Columbia Encyclopedia) that water softeners use the mineral zeolite, a natural ion-exchange resin. Rohrbach et al. further discloses the fibers are useful in odor control carbon filters, a zeolite coated odor control filter, and a metal sequestering water filter. (See Col 4, lines 30-33)

As the fiber as produced by the method of Rohrbach et al. has been shown to be usable in the same manner as the fiber produced by the method of Yu et al., the arts are analogous. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the pigment having optionally at least one ionic group, at least one ionizable group or a mixture of the two in the fiber of Yu et al. with one of the known ion exchange resins of zeolite as taught by Rohrbach et al. to produce a fiber that would be suitable for use in an odor control.

15. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,497,953) as applied to claim 1, 3-4, 8-15, 17-23, 25-29, and 31-34 above, in view of McDowell (US 3,175,339)

Regarding claim 24, Yu et al. discloses all of the claim limitations as set forth above, but the reference does not disclose for mechanical enforcement a thread, wire, yarn or the like of any material is co-extruded with the fibre. However, Yu et al. does disclose that other fibers can be used in lieu of acrylic fibers. (See Col 8, lines 45-46) These other fibers can be prepared in a similar manner as acrylic fiber using, for instance, a spinning process. (See Col 9, lines 8-9)

Accordingly, McDowell discloses a method to produce a particle-loaded monofilament or “monofil” comprised of a heavily-loaded section integrally joined to a particle free or substantially particle-free section by simultaneously spinning two viscose solutions. (See Col 1, lines 14-18) McDowell found it possible to extrude two spinning solutions through spinnerets of the type necessary to produce a conjugated filament, one component of which contains a substantial amount of the contact agent such as activated carbon while the other component is substantially or entirely free of the contact agent, the two components being joined side-by-side along the length of the filament. (See Col 2, 20-27) The two viscoses are thus coagulated into a “Siamese twin” type of monofilament, one side being conventional regenerated cellulose, therefore of average strength and flexibility, the other side being a particle-containing regenerated cellulose, therefore inflexible and brittle. (See Figure 3, Col 2, lines 35-46 and Col 3, lines 48-55)

McDowell et al. discloses a method of producing particle-loaded monofilaments, using a spinning process similar to that of Yu et al., as such the art is analogous. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the spinning solutions of McDowell in place of the spinning solution of Yu et al. for the production of a conjugated monofilament displaying mechanical enforcement through the inflexible and brittle particle-containing regenerated cellulose side.

16. Claims 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 6,497,953) as applied to claim 1, 3-4, 8-15, 17-23, 25-29, and 31-34 above, in view of Kuroda et al. (US 5,286,449)



As claims 30 are product-by-process claim, patentability of said claim is based on the recited product and does not depend on its method of production. Since the product in claim 30 is the same as the product produced by the method as disclosed by Yu et al. in view of Kuroda et al. the claim is unpatentable even though the Yu et al. in view of Kuroda et al. product was made by a different process. In re Marosi, 710 F2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See MPEP 2113.

Further, regarding claims 30 Yu et al. discloses all of the claim limitations as set forth above, but the reference does not disclose a module comprising fibre, said module comprising a bundle of fibers packed longitudinally inside a housing or any other orderly or disorderly fibre packing configuration inside a housing, or the use of a fibre as set forth above for the adsorption and/or purification of compounds from a mixture of compounds or a reaction mixture. However, Yu et al. does disclose the fibers are useful in a variety of goods including, but not limited to, apparel, woven and non-woven goods, industrial and other uses. (See Col 9, lines 40-43)

Kuroda et al. discloses a method for producing an adsorber module similar to that instantly claimed wherein the fibers are formed by a customary method, such as wet spinning, dry spinning, melt spinning, or the like. (See Col 5, lines 32-43 and Col 7, lines 4-8)

Additionally, Kuroda et al. discloses:

- module comprising fibre as set forth above said module comprising a bundle of fibers packed longitudinally inside a housing, or any other orderly or

disorderly fibre packing configuration inside a housing. (See Col 3, lines 44-55 and wherein the hollow fibers are present in the casing of the adsorber module)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to produce a fiber according to the method of Kuroda et al. in place of method to produce the fiber disclosed by Yu et al. for an adsorber module in which treatment of systemic lupus erythematosus, so-called immune complex diseases, and hyperlipemia, can be carried out through the removing of the malignant compounds present in patient blood plasma.

### ***Conclusion***

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALTREV C. SYKES whose telephone number is (571)270-3162. The examiner can normally be reached on Monday-Thursday, 7:30AM-5PM EST, alt Friday. If attempts to reach the examiner by telephone are unsuccessful,

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the examiner's supervisor, Basia Ridley can be reached on 571-272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ACS/  
3/10/08

/Basia Ridley/  
Supervisory Patent Examiner, Art Unit 4145